## METHODS FOR FABRICATING LITHOGRAPHY APPARATUS Abstract of the Invention

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A method for forming a mask assembly for use in lithography, typically electron-beam lithography, first forms in a substrate one half of a plurality of opening therethrough and then fills the openings with a removable fill material. Thereafter are formed the other half of the openings which are then filled with the removable fill material. After all the openings have been formed and filled, a support membrane is formed over the substrate and covers the filled windows. A mask layer is then formed over the membrane and patterned. The fill is then removed from all of the windows.